

Claims:

1. Pyrogenically produced silica powder characterised in that it has
 - a BET surface of 30 to 90 m²/g,
 - 5 - a DBP number of at least 80, expressed as g of dibutyl phthalate/100 g of silica and
 - a tamped density of no more than 110 g/l.
2. Silica powder according to claim 1, characterised in that the average aggregate circumference is at least 1000 nm.
3. Silica powder according to claims 1 or 2, characterised in that the kurtosis of the aggregate area is at least 20.
- 15 4. Silica powder according to claims 1 to 3, characterised in that it has a pH value, measured in a 4 per cent aqueous dispersion, of between 3.8 and 5.
5. Pyrogenically produced silica powder according to claims 1 to 4, characterised in that
 - 20 - the BET surface is 35 to 55 m²/g,
 - the DBP number is 100 to 130 g dibutyl phthalate/100 g silicon dioxide,
 - and the pH value, measured in a 4% aqueous dispersion, is 4.3 to 4.8.
- 25 6. Process for the production of the silica powder according to claims 1 to 5, characterised in that at least one vaporous silicon compound, a gas containing free oxygen (primary air) and a combustible gas are mixed together in a closed burner and then burnt in a flame in the flame tube of the burner, the solid
30 obtained is separated from the gas mixture and optionally purified, wherein

- the oxygen content of the gas containing free oxygen is adjusted such that the λ value is greater than or equal to 1, and
 - the γ value is between 1.2 and 1.8.
- 5 7. Process according to claim 6, characterised in that $1 \leq \lambda \leq 1.2$.
8. Process according to claims 6 or 7, characterised in that, in addition, secondary air is introduced into the flame tube, secondary air/primary air being ≤ 1.1 .
- 10 9. Process according to claims 6 to 8, characterised in that the proportion of oxygen in the gas containing free oxygen is between 30 and 40 vol.%.
- 15 10. Process according to claims 6 to 9, characterised in that silicon halides, organochlorosilicon compounds or organosilicon compounds and mixtures of the above compounds are used as the silicon compound.
- 20 11. Process according to claims 6 to 10, characterised in that $1 \leq \lambda \leq 1.2$, $1.2 \leq \gamma \leq 1.8$, the ratio of secondary air / primary air is ≤ 1.1 and the proportion of oxygen in the gas containing free oxygen is between 30 and 40 vol.% and the silicon compound is silicon tetrachloride.
- 25 12. Use of the silica powder according to claims 1 to 5 for toner applications, in the silicone and rubber industry, to adjust the rheology of liquid systems, for the production of dispersions, as a filler, for the film-coating of polyethylene terephthalate and polyvinyl acetate, in lacquers and paints.